

**July 2015** 

## Ellsworth County

## Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 13 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Ellsworth County economy. These 13 sectors have a total direct output of approximately \$132 million and support 499.5 jobs in Ellsworth County. Running the model for all 13 sectors simultaneously produces the following results:

Agriculture Contribution in Ellsworth County

				% of Gross		% of Gross		
		% of Total	Total	Regional		Regional		
Impact Type <sup>2</sup>	Employment	Employment	Value Added <sup>3</sup>	Product <sup>4</sup>	Output <sup>5</sup>	Product		
Direct Effect	499.5	11%	\$52,579,270	18%	\$132,311,407	45%		
Indirect Effect	101.0	2%	\$6,587,407	2%	\$13,536,785	5%		
Induced Effect	70.6	2%	\$4,648,427	2%	\$8,256,177	3%		
Total Effect	671.1	15%	\$63,815,104	22%	\$154,104,369	53%		

As shown in the above table, agriculture, food, and food processing supports 671.1 jobs, or 15% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$154 million, roughly 53% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 13 agriculture, food, and food processing sectors is approximately \$64 million, or 22% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 22% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting: <a href="https://implan.com/index.php?option=com\_content&view=category&id=19">https://implan.com/index.php?option=com\_content&view=category&id=19</a>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 114.4 employees. This table also shows the amount of jobs that are created by the agriculture industry in Ellsworth County.

Top 10 Industries Affected by Employment

	Total	Total
Sector Description:	Employment	Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	114.4	\$26,836,471
Other chemical and fertilizer mineral mining	107.6	\$38,138,747
Grain farming	91.3	\$28,944,703
Animal production, except cattle and poultry and eggs	77.7	\$7,133,659
All other crop farming	60.9	\$7,000,276
Animal, except poultry, slaughtering	24.4	\$14,712,559
Wholesale trade	13.8	\$2,684,433
Support activities for agriculture and forestry	13.3	\$841,174
Truck transportation	13.3	\$1,812,992
Monetary authorities and depository credit intermediation	13.2	\$1,979,428

The Other chemical and fertilizer mineral mining industry directly contributes approximately \$38 million to Ellsworth County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

	Total	Total
Sector Description:	Employment	Output
Other chemical and fertilizer mineral mining	107.6	\$38,138,747
Grain farming	91.3	\$28,944,703
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	114.4	\$26,836,471
Animal, except poultry, slaughtering	24.4	\$14,712,559
Animal production, except cattle and poultry and eggs	77.7	\$7,133,659
All other crop farming	60.9	\$7,000,276
Farm machinery and equipment manufacturing	7.8	\$4,762,565
Oilseed farming	2.0	\$3,897,895
Wholesale trade	13.8	\$2,684,433
Monetary authorities and depository credit intermediation	13.2	\$1,979,428

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Ellsworth County's economy.

Sector Description:	Employment	Output
Oilseed farming	2.0	\$3,856,731
Grain farming	90.5	\$28,702,017
Vegetable and melon farming		\$20,282
Greenhouse, nursery, and floriculture production	2.9	\$467,167
All other crop farming	60.9	\$7,000,103
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		. ,
and farming	113.4	\$26,616,280
Poultry and egg production	0.3	\$149,343
Animal production, except cattle and poultry and eggs	77.1	\$7,078,305
Other chemical and fertilizer mineral mining	107.6	\$38,137,334
Animal, except poultry, slaughtering	24.4	\$14,712,559
Bread and bakery product, except frozen, manufacturing		\$258,898
Farm machinery and equipment manufacturing	7.8	\$4,762,545
Veterinary services		\$549,842

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.